

ABSTRACT OF DISCLOSURE

For providing a cheap semiconductor memory device with improving reliability by level of a cell, in the place of escaping from defects on memory cells electrically, through such as ECC, and further for providing a cell structure enabling scaling-down in the vertical direction with maintaining the reliability, in a semiconductor memory device, upon which high-speeded read-out operation is required, a charge storage region is constructed with particles made from a large number of semiconductor charge storage small regions, each being independent, thereby increasing the reliability by the cell level.